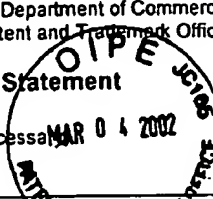















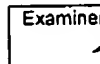
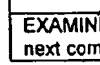

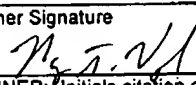


|  |   |                                       |                               |
|--|---|---------------------------------------|-------------------------------|
| Substitute Form PTO-1449<br>(Modified)<br><br><b>Information Disclosure Statement</b><br><b>by Applicant</b><br>(Use several sheets if necessary)<br><br>(37 CFR §1.98(b)) | U.S. Department of Commerce<br>Patent and Trademark Office<br><br> | Attorney's Docket No.<br>06286-292001 | Application No.<br>09/925,824 |
|  |   | Applicant<br>Christopher K. Murphy    |                               |
|  |   | Filing Date<br>August 9, 2001         | Group Art Unit<br>1615        |

| U.S. Patent Documents |           |               |            |          |       |          |                            |
|-----------------------|-----------|---------------|------------|----------|-------|----------|----------------------------|
| Examiner Initial      | Desig. ID | Patent Number | Issue Date | Patentee | Class | Subclass | Filing Date If Appropriate |
|                       | AA        |               |            |          |       |          |                            |

| Foreign Patent Documents or Published Foreign Patent Applications |           |                 |                  |                          |       |          |             |    |
|---|-----------|-----------------|------------------|--------------------------|-------|----------|-------------|----|
| Examiner Initial  | Desig. ID | Document Number | Publication Date | Country or Patent Office | Class | Subclass | Translation |    |
|   |           |                 |                  |                          |       |          | Yes         | No |
|   | AB        |                 |                  |                          |       |          |             |    |

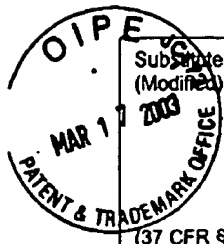
| Other Documents (include Author, Title, Date, and Place of Publication)             |           |   |
|---|-----------|---|
| Examiner Initial  | Desig. ID | Document  |
|    | AC        | Bock <i>et al.</i> , "A Simple and Rapid..." <i>Analytical Biochemistry</i> 86:238-251, 1978. ✓   |
|    | AD        | Bognar <i>et al.</i> , "Folylpoly-γ-glutamate Synthetase-Dihydrofolate..." <i>The Journal of Biological Chemistry</i> 260(9):5625-5630, 1985. ✓ |
|   | AE        | Cronan <i>et al.</i> , "Genetic and Biochemical ..." <i>Journal of Bacteriology</i> 149(3):916-922, 1982. ✓                                     |
|  | AF        | De Saizieu <i>et al.</i> , "Enzymic characterization of..." <i>Biochem. J.</i> 306(Pt2):371-337, 1995. ✓  |
|  | AG        | Hennig <i>et al.</i> , "Crystal structure and..." <i>Nature Structural Biology</i> 5:357-362, 1998. ✓   |
|  | AH        | Herrington <i>et al.</i> , "Measurement of the Uptake of Radioactive..." <i>Analytical Biochemistry</i> 216:427-430, 1994. ✓                    |
|  | AI        | Huovinen "Increases in Rates..." <i>Clinical Infectious Diseases</i> 24(Suppl 1):S63-6, 1997. ✓   |
|  | AJ        | Huovinen <i>et al.</i> , "Trimethoprim and Sulfonamide..." <i>Antimicrobial Agents and Chemotherapy</i> 39(2):279-289, 1995. ✓                  |
|  | AK        | Jones <i>et al.</i> , "Cloning and Sequencing..." <i>Journal of Bacteriology</i> 175(7):2125-2130, 1993. ✓                                      |
|  | AL        | Merkel <i>et al.</i> , "Characterization and sequence..." <i>FEMS Microbiology Letters</i> 143:247-252, 1996. ✓                                 |
|  | AM        | Myoda <i>et al.</i> , "Cloning and mapping..." <i>Gene</i> 29:135-143, 1984. ✓  |
|  | AN        | Myoda <i>et al.</i> , "Coregulation of dihydrofolate ..." <i>Biochimica et Biophysica Acta</i> 842:99-103, 1985. ✓                              |
|  | AO        | Nar <i>et al.</i> , "Active site topology..." <i>Proc. Natl. Acad. Sci. USA</i> 92:121120-12125, 1995. ✓  |
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|  | AQ        | Swedberg <i>et al.</i> , "Characterization of mutationally..." <i>Journal of Bacteriology</i> 137(1):129-136, 1979. ✓                           |
|  | AR        | Swedberg <i>et al.</i> , "Sulfonamide Resistance in..." <i>Antimicrobial Agents and Chemotherapy</i> 42(5):1062-1067, 1998. ✓                   |
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|  | AT        | Xiao <i>et al.</i> , "Crystal Structure of..." <i>Structure</i> 7:489-496, 1999. ✓  |

|  |                           |
|--|---------------------------|
| Examiner Signature<br>  | Date Considered<br>2/4/05 |
| EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |                           |

|  |   |  |                                       |                               |
|--|---|--|---------------------------------------|-------------------------------|
| Substitute Form PTO-1449<br>(Modified)<br><br><b>Information Disclosure Statement</b><br><b>by Applicant</b><br>(Use several sheets if necessary)<br><br>(37 CFR §1.98(b)) | U.S. Department of Commerce<br>Patent and Trademark Office              |  | Attorney's Docket No.<br>06286-292001 | Application No.<br>09/925,824 |
|  | Applicant<br>Christopher K. Murphy                                      |  |                                       |                               |
|  | Filing Date<br>August 9, 2001   |  | Group Art Unit<br>1615                |                               |
|  | Other Documents (include Author, Title, Date, and Place of Publication) |  |                                       |                               |

| Examiner Initial | Desig. ID | Document   |
|------------------|-----------|--|
| <i>M</i>         | AU        | Zimmerman <i>et al.</i> , "Inhibitors of Folate..." <i>Journal of Medicinal Chemistry</i> 20(9):1213-15, 1977. |
| <i>M</i>         | AV        | GenBank Accession No. L47709, August 9, 2000   |

|  |                           |
|--|---------------------------|
| Examiner Signature<br><i>M. J. V. 1</i>  | Date Considered<br>2/1/05 |
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 Substitute Form PTO-1449  
 (Modified)

 U.S. Department of Commerce  
 Patent and Trademark Office

 Attorney's Docket No.  
 15132-292001

 Application No.  
 09/925,824

**Information Disclosure Statement  
 by Applicant**  
 (Use several sheets if necessary)

(37 CFR §1.98(b))

 Applicant  
 Christopher K. Murphy

 Filing Date  
 August 9, 2001

 Group  
 1615

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**U.S. Patent Documents**

| Examiner Initial | Desig. ID | Document Number | Publication Date | Patentee  | Class | Subclass | Filing Date If Appropriate |
|------------------|-----------|-----------------|------------------|-----------|-------|----------|----------------------------|
|                  | AA        | 6,153,381       | 11/28/2000       | Rothstein | 435   | 6        |                            |
|                  | AB        |                 |                  |           |       |          |                            |

**Foreign Patent Documents or Published Foreign Patent Applications**

| Examiner Initial | Desig. ID | Document Number | Publication Date | Country or Patent Office | Class | Subclass | Translation |    |
|------------------|-----------|-----------------|------------------|--------------------------|-------|----------|-------------|----|
|                  |           |                 |                  |                          |       |          | Yes         | No |
| <i>M</i>         | AC        | 0 200 252 A1    | 12/10/1986       | EP                       |       |          |             |    |
| <i>M</i>         | AD        | WO 01/48248 A2  | 07/05/2001       | PCT                      |       |          |             |    |

**Other Documents (include Author, Title, Date, and Place of Publication)**

| Examiner Initial | Desig. ID | Document  |
|------------------|-----------|---|
| <i>M</i>         | AE        | Baigori et al., "Isolation and Characterization of <i>Bacillus subtilis</i> Mutants Blocked in the Synthesis of Pantothenic Acid," JOURNAL OF BACTERIOLOGY 173(13):4240-4242 (July 1991)  |
| <i>M</i>         | AF        | Huang et al., "Protein Expression in Response to Folate Stress in <i>Escherichia coli</i> ," JOURNAL OF BACTERIOLOGY 179(17):5648-5653 (September 1997)   |
| <i>M</i>         | AG        | Kunst et al., "The complete genome sequence of the Gram-positive bacterium <i>Bacillus subtilis</i> ," NATURE 390:249-256 + tables A-O (November 20, 1997)  |
| <i>M</i>         | AH        | Kurtov et al., "The <i>Aspergillus nidulans</i> <i>panB</i> gene encodes ketopantoate hydroxymethyltransferase, required for biosynthesis of pantothenate and Coenzyme A," MOL. GEN. GENET. 262:115-120 (1999)                                  |
| <i>M</i>         | AI        | Quinlivan et al., "Mechanism of the antimicrobial drug trimethoprim revisited," THE FASEB JOURNAL 14:2519-2524 (December 2000)  |
| <i>M</i>         | AJ        | Sahm et al., "D-Pantothenate Synthesis in <i>Corynebacterium glutamicum</i> and Use of <i>panBC</i> and Genes Encoding L-Valine Synthesis for D-Pantothenate Overproduction," APPLIED AND ENVIRONMENTAL MICROBIOLOGY 65(5):1973-1979 (May 1999) |
| <i>M</i>         | AK        | Wilson et al., "Exploring drug-induced alterations in gene expression in <i>Mycobacterium tuberculosis</i> by microarray hybridization," PNAS 96(22):12833-12838 (October 26, 1999)   |
|                  | AL        |   |
|                  | AM        |   |

Examiner Signature

*M. J. Vogel*

Date Considered

2/4/05

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